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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/762,077	01/21/2004	Mervin G. Wood	II/2-22829/A/CGC 2141	4619

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CIBA SPECIALTY CHEMICALS CORPORATION
PATENT DEPARTMENT
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EXAMINER

KLEMANSKI, HELENE G

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 07/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/762,077

Applicant(s)

WOOD ET AL.

Examiner

Helene Klemanski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-12 and 19-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-9,12 and 19-27 is/are rejected.
- 7) ☒ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5/4/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Claims 1, 4, 5, 7, 19-21 and 25-27 have been amended, claims 3 and 13-18 have been cancelled and no new claims have been added. Hence, claims 1, 2, 4-12 and 19-27 are pending in the application.
2. The provisional obviousness-type double patenting rejections to the claims as set forth in the previous Office Action dated February 1, 2005 have been overcome by applicant's amendments and are now withdrawn. The examiner acknowledges that applicants are willing to file a terminal disclaimer over co-pending application No. 10/735,319 to overcome the provisional obviousness-type double patenting rejection however, it is the examiner's position that this is not necessary since applicants have amended their claims. The present claims as now amended only read on dialkyl N-hydroxylamine compounds not including salts whereas the amended claims of 10/735,319 only read on dialkyl N-hydroxylamine salts.
3. The 102(b) rejections to the claims over Moffatt ('409), JP11/170686, Seltzer et al. ('724) and WO 02/055618 as set forth in the previous Office Action dated February 1, 2005 have been overcome by applicant's amendments and are now withdrawn.
4. The 102(e) rejections to the claims over Wood et al. (US 2004/0126510), Biry (US 2004/0074417), Oki et al. (US 2002/0050226), Omatsu et al. (US 2003/0097959), Oki et al. ('597), Oki et al. ('735), Oki et al. (US 2004/0011249) and Kitamura et al. (US 2003/0070582) as set forth in the previous Office Action dated February 1, 2005 have

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been overcome by applicant's amendments and are now withdrawn. A new rejection over Omatsu et al. (US 2003/0097959) is entered below.

5. The 103(a) rejection to the claims over Helling et al. as set forth in the previous Office Action dated February 1, 2005 have been overcome by applicant's amendments and are now withdrawn. New rejections appear below.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, lines 5 and 6, the term "N-benzyl-N-(1-cyclohexyloxy-2,2,6,6-tetramethylpiperidin-4-ylidene)amino-N-oxide" is considered vague and indefinite since this phrase does not appears to be a nitron compound. Please clarify.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

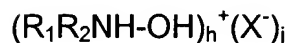
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country; more than one year prior to the date of application for patent in the United States.

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9. Claims 1, 2, 4, 5 and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Seltzer et al. (US 2002/0174964).

Seltzer et al. (US 2002/0174964) teach a composition having reduced loss of brightness and enhanced resistance to yellowing which comprises pulp or paper which still contains lignin and 0.001-5% by weight based on the pulp or paper of an N,N-dialkylhydroxylamine acid salt of the formula



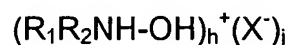
wherein R_1 and R_2 are independently C_{1-18} alkyl, C_{1-18} alkyl substituted by a hydroxyl group; X is an inorganic or organic anion such as phosphate, phosphonate, carbonate, bicarbonate, nitrate, chloride, bromide, bisulfite, sulfite, bisulfate, sulfate, borate, formate, acetate, benzoate, citrate, etc. and the total charge of cations h is equal to the total charge of anions j. The composition may further comprise UV absorbers such as benzotriazoles, s-triazines, benzophenones, α -cyanoacrylates, oxanilides, benzoxazinones, benzoates and α -alkyl cinnamates. It is preferable that the paper or pulp is chemimechanical or thermomechanical pulps or papers (i.e. recording mediums). See paras. 0017-0059, paras. 0100-0104, paras. 0106-0110, examples 1, 3, 4 and 8-10 and claims 1-11, 35-37 and 41-43. The composition as taught by Seltzer et al. (US 2002/0174964) appears to anticipate the present claims.

10. Claims 1, 2, 4, 5 and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Seltzer et al. (US 2002/0088574).

Seltzer et al. (US 2002/0088574) teach a composition having reduced loss of brightness and enhanced resistance to yellowing which comprises pulp or paper which

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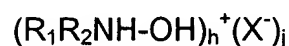
still contains lignin and 0.001-5% by weight based on the pulp or paper of an N,N-dialkylhydroxylamine acid salt of the formula



wherein R_1 and R_2 are independently C_{1-18} alkyl, C_{1-18} alkyl substituted by a hydroxyl group; X is an inorganic or organic anion such as phosphate, phosphonate, carbonate, bicarbonate, nitrate, chloride, bromide, bisulfite, sulfite, bisulfate, sulfate, borate, formate, acetate, benzoate, citrate, etc. and the total charge of cations h is equal to the total charge of anions j. The composition may further comprise UV absorbers such as benzotriazoles, s-triazines, benzophenones, α -cyanoacrylates, oxanilides, benzoxazinones, benzoates and α -alkyl cinnamates. It is preferable that the paper or pulp is chemimechanical or thermomechanical pulps or papers (i.e. recording mediums). See paras. 0019-0059, paras. 0100-0104, paras. 0106-0110, examples 1, 3, 4 and 8-10 and claims 1-11, 35-37 and 41-43. The composition as taught by Seltzer et al. (US 2002/0088574) appears to anticipate the present claims.

11. Claims 1, 2, 4, 5 and 21-24 are rejected under 35 U.S.C. 102(b) as being anticipated by Seltzer et al. ('326).

Seltzer et al. ('326) teach a composition having reduced loss of brightness and enhanced resistance to yellowing which comprises pulp or paper which still contains lignin and 0.001-5% by weight based on the pulp or paper of an N,N-dialkylhydroxylamine acid salt of the formula



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wherein R₁ and R₂ are independently C₁₋₁₈ alkyl, C₁₋₁₈ alkyl substituted by a hydroxyl group; X is an inorganic or organic anion such as phosphate, phosphonate, carbonate, bicarbonate, nitrate, chloride, bromide, bisulfite, sulfite, bisulfate, sulfate, borate, formate, acetate, benzoate, citrate, etc. and the total charge of cations h is equal to the total charge of anions j. The composition may further comprise UV absorbers such as benzotriazoles, s-triazines, benzophenones, α-cyanoacrylates, oxanilides, benzoxazinones, benzoates and α-alkyl cinnamates. It is preferable that the paper or pulp is chemimechanical or thermomechanical pulps or papers (i.e. recording mediums). See col. 3, line 20 – col. 5, line 12, col. 7, line 50 – col. 8, line 5, examples 1, 3, 4 and 8-11 and claims 1-11, 35-37 and 41-43. The composition as taught by Seltzer et al. ('326) appears to anticipate the present claims.

Claim Rejections - 35 USC § 103

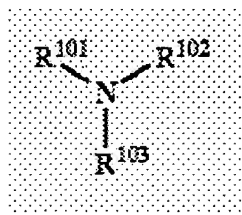
12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1, 2, 20, 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omatsu et al. (US 2003/0097959).

Omatsu et al. (US 2003/0097959) teach an aqueous ink jet recording ink composition comprising an azo dye and 2-200 parts by mass based on 100 parts by mass of the dye of a compound of the formula

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wherein R¹⁰¹ and R¹⁰² are independently H, an aliphatic group or an aromatic group and R¹⁰³ is a hydroxy group or any pair of R¹⁰¹ and R¹⁰² may be coupled to form a 5- to 7-membered ring. The ink can further contain an antifading agent such as a benzotriazole. The ink is printed onto a recording paper or recording film such as those having as a support, chemical pulp or mechanical pulp to which conventionally known additives have been added. Preferably, paper or a plastic film having both sides laminated with a polyolefin (i.e. polyethylene) is used as the support. See paras. 0012-0015, paras. 0115-0119, compound (I-64), paras. 0127-0128, paras. 0175-0177, Table 15; Ink set 114, paras. 0203-0204 and claim 1. Omatsu et al. (US 2003/0097959) fails to specifically exemplify the use of a dialkyl hydroxylamine compound (i.e. compound I-64) as claimed by applicants.

Therefore, it would have been obvious to one having ordinary skill in the art to use the specific dialkyl hydroxylamine compound (i.e. compound I-64) as claimed by applicants as Omatsu et al. (US 2003/0097959) also discloses the use of these dialkyl hydroxylamine compounds but fails to show an example incorporating them.

14. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Omatsu et al. (US 2003/0097959) as applied to claims 1, 2, 20, 25 and 26 above, and further in view of Seltzer et al. ('326).

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Omatsu et al. (US 2003/0097959) is cited and relied upon for the above stated reasons. Omatsu et al. (US 2003/0097959) fails to specifically teach the addition of the specific UV absorbers as claimed by applicants.

Seltzer et al. ('326) teach a similar composition having reduced loss of brightness and enhanced resistance to yellowing which comprises pulp or paper which still contains lignin, an N,N-dialkylhydroxylamine acid salt and UV absorbers such as benzotriazoles, s-triazines, benzophenones, α -cyanoacrylates, oxanilides, benzoxazinones, benzoates and α -alkyl cinnamates.

Therefore, it would have been obvious to one having ordinary skill in the art to have replaced the benzotriazole UV absorber of Omatsu et al. (US 2003/0097959) with the UV absorbers of Seltzer et al. ('326) because the substitution of art recognized equivalents as shown by Seltzer et al. ('326) would have been within the level of ordinary skill in the art.

15. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Omatsu et al. (US 2003/0097959) as applied to claims 1, 2, 20, 22-25 and 26 above, and further in view of Seltzer et al. ('326).

Omatsu et al. (US 2003/0097959) is cited and relied upon for the above stated reasons. Omatsu et al. (US 2003/0097959) fails to specifically teach a recording sheet coated with a composition containing the dialkyl hydroxylamine stabilizer as claimed by applicants.

Seltzer et al. ('326) teach a similar composition having reduced loss of brightness and enhanced resistance to yellowing which comprises pulp or paper which still

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contains lignin an N,N-dialkylhydroxylamine acid salt wherein the paper or pulp is chemimechanical or thermomechanical pulps or papers (i.e. recording mediums).

Therefore, it would have been obvious to one having ordinary skill in the art to have replaced the recording sheet of Omatsu et al. (US 2003/0097959) with the recording mediums of Seltzer et al. ('326) because the substitution of art recognized equivalents as shown by Seltzer et al. ('326) would have been within the level of ordinary skill in the art.

16. Claims 1, 6, 12 and 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suhadolnik et al. ('009).

Suhadolnik et al. ('009) teach a compound having a hindered amine moiety and a nitron moiety in the same molecule. The compound is used to achieve light stability and process stability for various polymer substrates. Suhadolnik et al. ('009) further teaches a composition comprising a polymer such as cellulose (i.e. paper) subject to the deleterious effects of light or heat and 0.01-5% by weight of a compound having a hindered amine moiety and a nitron moiety in the same molecule. The composition may also contain conventional additives such as 2-(2'-hydroxyphenyl)-benzotriazoles, 2-hydroxy-benzophenones, acrylates, hydroxyphenyl-s-triazines (i.e. UV absorbers as claimed) and other stabilizers. See col. 2, lines 5-10, col. 5, lines 14-20, col. 7, lines 43-48, col. 8, lines 19-35, col. 10, lines 16-45, col. 11, lines 12-25, col. 12, lines 15-19, col. 13, lines 18-45, col. 14, lines 1-30, example 1 and claims 28 and 31. Suhadolnik et al. ('009) fails to specifically exemplify the use of cellulose as the substrate as claimed by applicants.

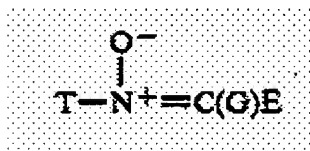
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Therefore, it would have been obvious to one having ordinary skill in the art to use the specific cellulose substrates claimed by applicants as Suhadolnik et al. ('009) also discloses the use of these substrates but fails to show an example incorporating them.

17. Claims 7-9 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suhadolnik et al. ('009) as applied to claims 1, 6, 12 and 22-24 above, and further in view of Ravichandran et al. ('901).

Suhadolnik et al. ('009) is cited and relied upon for the above stated reasons. Suhadolnik et al. ('009) fails to teach the use of the specific nitron stabilizers of the formulas as claimed by applicants or a mixture of dialkylhydroxylamine and nitron stabilizers as claimed by applicants.

Ravichandran et al. ('901) teach nitron stabilizers of the formula



wherein T is a straight or branched chain C₈₋₁₈ alkyl; G is H, methyl or ethyl and E is a straight or branched chain C₅₋₁₇ alkyl. Ravichandran et al. ('901) further teach a composition comprising a saturated polyolefin and 0.01-5% by weight of a nitron stabilizer of the above formula. The composition may further comprise another stabilizer such as UV absorbers and an N,N-dialkylhydroxylamine wherein the alkyl has from 8 to 18 carbon atoms. See col. 1, line 48 – col. 2, line 15, col. 2, line 60 – col. 3, line 11, col. 3, lines 50-56, col. 4, line 57 – col. 5, line 4, col. 6, lines 20-22, col. 7, line 49 – col. 8, line 50, examples 1, 3, 4 and 6 and claims 1-10, 14020, 24, 25, 27 and 28.

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Therefore, it would have been obvious to one having ordinary skill in the art to have replaced the nitron compound of Suhadolnik et al. ('009) with the nitron compound or mixture of nitron compound and hydroxylamine compound of Ravichandran et al. ('901) because the substitution of art recognized equivalents as shown by Ravichandran et al. ('901) would have been within the level of ordinary skill in the art.

Response to Arguments

18. Applicant's arguments with respect to claims 1, 2, 4-12 and 19-27 have been considered but are moot in view of the new ground(s) of rejection.

Applicants argued that the Omatsu et al. (US 2003/0097959) reference does not teach the dialkyl hydroxylamine compounds of the present claims. The examiner disagrees since compound (I-64) is still encompassed by applicant's claims (i.e. when R_1 is a substituted alkyl with E_1COO as the substituent and E_1 is H).

Allowable Subject Matter

19. Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

20. The following is a statement of reasons for the indication of allowable subject matter: None of the prior art of record teaches or fairly suggests the use of the nitron stabilizers of the formulas as claimed by applicants in claims 10 and 11.

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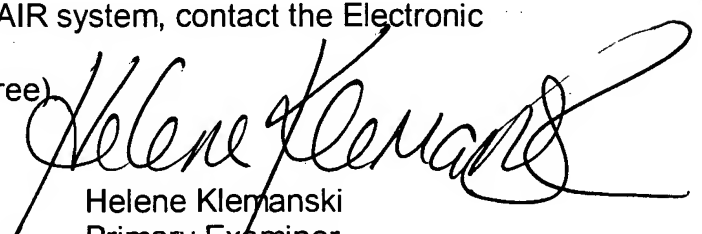
Conclusion

The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Helene Klemanski
Primary Examiner
Art Unit 1755



HK

July 18, 2005